U. S. FOREST SERVICE

RESEARCH NOTE NC-136

ORTH CENTRAL FOREST EXPERIMENT STATION, FOREST SERVICE—U.S. DEPARTMENT OF AGRICULTURE

Folwell Avenue, St. Paul, Minnesota 55101

IOWA SAW-LOG PRODUCTION AND SAWMILL INDUSTRY, 1969

ABSTRACT.—Iowa loggers harvested nearly 47 million board feet of saw logs in 1969. Leading species were soft maple, elm, red oak, and cottonwood. Three-fifths of the wood residue generated at 63 Iowa sawmills was not used.

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Iowa loggers cut 46.9 million board feet of saw logs in 1969. More than 6 million board feet each of soft maple, elm, red oak, and cottonwood were harvested (table 1). Less than 1 percent was softwoods. Of the 7 million board feet of export logs produced, more than half were shipped to Missouri, one-fourth to Illinois, and the remainder to Wisconsin, Kansas, Nebraska, and Minnesota. Major export species were soft maple, black walnut, and cottonwood.

Sixty-three Iowa sawmills bought 44.4 million board feet of logs in 1969 of which 39.9 million were local logs and 4.5 million were imported, primarily from Illinois, Missouri, Wisconsin, and Minnesota.

By contrast, most logs sawn in Iowa in the late 1800's came from Wisconsin and Minnesota. Lumber production peaked in 1889 at 608 million board feet, sank to a low of 8 million board feet in 1921, then increased to a range of 43 to 91 million board feet annually since 1941 (fig. 1). The 44 million board feet of lumber sawn in 1969 was used primarily for farm building construction and repair, furniture, dunnage, pallets, and railroad ties.

The number of active Iowa sawmills has been declining for many years and the average mill size has been increasing. In 1953, more than 1,000 mills had an average production of less than 65 thousand board feet. By contrast, the 63 active mills in 1969 produced an average of 698 thousand board feet—over ten times the 1953 average. This trend toward larger mills is good because larger mills tend to operate longer each year and to continue operating during business recessions. In addition, most larger mills have greater possibilities for marketing their wood residue and more capital or credit available.

Most of the 46 commercial sawmills[1] operated in eastern and southern Iowa (fig. 2). Half of the 20 large mills (producing 1 million board feet or more in 1969) were concentrated in five northeastern counties—Allamakee, Clayton, Delaware, Dubuque, and Jones.

[1] *Mill producing more than* 100,000 *board feet annually.*

Table 1.—*Saw-log production, receipts, and movement, Iowa, 1969*

(In thousand board feet, International ¼-inch rule)

Species	Remained in Iowa	Production shipped to: Missouri	Illinois	Wisconsin	Kansas	Nebraska	Minnesota	Total production	Receipts from: Illinois	Missouri	Wisconsin	Minnesota	Nebraska	Total receipts 1/
Eastern redcedar	1	--	--	--	--	--	--	1	--	--	--	--	--	1
Other softwoods	222	--	--	--	--	--	--	222	--	--	--	--	--	222
White oak	4,452	18	202	52	--	10	51	4,785	103	124	139	83	4	4,905
Red oak	6,643	8	295	312	--	--	71	7,329	138	200	406	384	--	7,771
Pecan hickory	4	--	--	--	--	--	--	4	6	6	--	--	--	16
Other hickory	328	--	33	--	--	--	--	361	51	21	17	8	--	425
Hard maple	1,417	--	--	73	--	--	--	1,490	86	12	126	29	--	1,670
Soft maple	7,249	1,549	553	--	--	83	--	9,434	406	435	--	--	50	8,140
Ash	1,084	48	60	21	--	--	--	1,213	39	19	32	33	63	1,270
Cottonwood	6,032	606	204	6	--	83	--	6,931	68	130	21	45	--	6,296
Aspen	162	--	60	--	--	--	--	222	--	--	5	25	--	192
Basswood	1,361	--	60	73	--	--	71	1,565	97	21	139	41	13	1,672
Black walnut	2,396	1,490	--	31	439	--	--	4,356	176	31	118	14	21	2,756
Black cherry	117	--	--	--	--	--	--	117	20	--	31	2	--	170
Elm	7,738	3	120	21	--	84	10	7,976	72	93	99	41	11	8,054
Birch	222	8	93	--	--	--	--	323	12	38	--	--	--	272
Sycamore	92	--	39	--	--	--	--	131	12	30	--	--	--	134
Other hardwoods	394	29	33	--	--	--	--	456	4	9	17	6	8	438
Total	39,914	3,759	1,752	589	439	260	203	46,916	1,290	1,169	1,150	711	170	44,404

1/ Includes Iowa production that remained in Iowa (column 1).

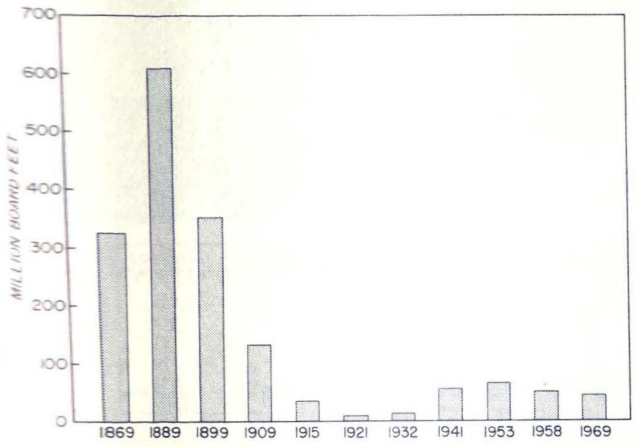

Figure 1.—Iowa lumber production for selected years, 1869-1969.

Three-fifths of the wood residue (slabs, edgings, sawdust, and shavings) generated at sawmills was not used (table 2). From the 22,000 cords of coarse residue (slabs and edgings) produced in 1969, about one-third was sold to 5 pulpmills, 5 percent was used for fuel, and the remainder was not used. The major uses (41 percent) of fine residue (sawdust and shavings) were for livestock bedding, poultry litter, mulch, and soil conditioner. These markets are likely to expand, providing a good chance for Iowa sawmills to sell more of their fine residues.

Inasmuch as only 9 of the 20 large sawmills sold coarse residue to pulpmills in 1969, opportunities appear to be fair for larger residue sales.

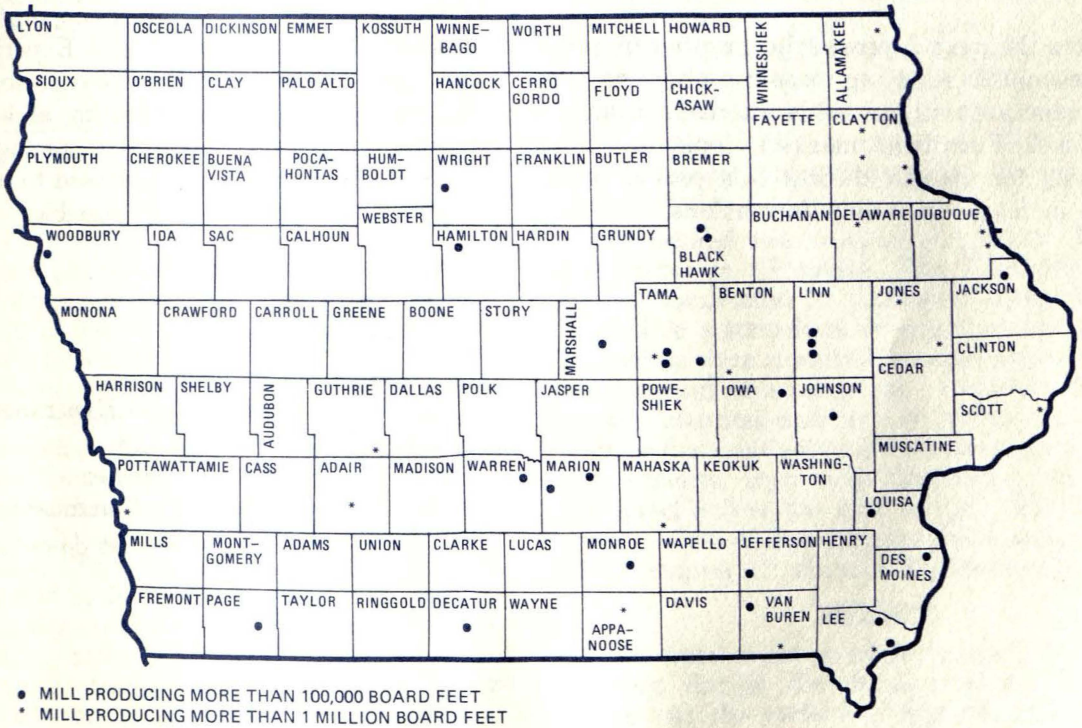

Figure 2.—Iowa sawmillls in 1969.

Table 2.—*Volume of residue produced at Iowa sawmills, by type of use, 1969*

(In thousand cubic feet)

Type of use	Wood residue						Bark	
	Total		Coarse[1]		Fine[2]			
	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood
Fiber[3]	--	570	--	570	--	--	--	154
Industrial fuel	1	12	--	7	1	5	--	*
Domestic fuel	7	99	7	75	--	24	5	61
Other[4]	*	498	--	1	*	497	--	22
Not used	7	1,737	2	1,070	5	667	2	1,132
Total	15	2,916	9	1,723	6	1,193	7	1,369

1/ Material suitable for chipping such as slabs and edgings.
2/ Material not suitable for chipping such as sawdust and shavings.
3/ All residue used in manufacturing fiber products, such as pulp and hardboard.
4/ All residue used as livestock bedding, mulch, poultry litter, and specialty items.
* Less than 500 cubic feet.

Increased sales will depend on the sawmills' ability to furnish residue in the form and quality desired by the pulpmills at prices competitive with local roundwood and residue from other States.

During the next 5 years, the number of active Iowa sawmills is likely to remain stable and lumber production will probably increase from the 1969 level. Furniture markets look especially promising for growth during this period of expected increases in family formations.

The 1969 data came from canvasses of all Iowa sawmills by the Iowa Conservation Commission, all Missouri sawmills by the Missouri Conservation Department, and all Kansas sawmills by the State Forester's staff. All were cooperative studies with the North Central Forest Experiment Station. The Station also canvassed some sawmills in Illinois, Minnesota, Nebraska, and Wisconsin to determine the volume of Iowa logs received in 1969. Appreciation is expressed to all of these mills for making this study possible.

JAMES E. BLYTH
Market Analyst
North Central Forest Experiment Station
WILLIAM A. FARRIS
Assistant State Forester
Iowa Conservation Commission

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